AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at line 13 on page 8 with the following paragraph:

--Figure 1 shows a cross-section of the baseline suspension design 10 in a system according to the invention. The vehicle 12 is supported by a string of magnets 18 on each side and these magnets create attractive forces to the laminated steel rails 14 on the guideway 24. Also shown is box beam 22.. The dimensions shown in Fig. 1 were chosen with several factors in mind, e g.,--

Please replace the paragraph beginning at line 25 on page 9 with the following paragraph:

--Figure 3 is a graph depicting the suspension force 30 and guidance force 32 as a function of lateral displacement for a 1-wavelength (0.5 meter) section of vehicle magnets and for an 80 mm rail width, for a system such as described above. This graph was generated for magnets with an energy product of 40 mega Gauss Oersted (MGO) using 3D finite element analysis with periodic boundary conditions. The normal operation is with 20 mm vertical displacement and zero horizontal displacement and then the suspension force is 2,700 N per wavelength, as shown in the graph. The suspension will then support 550 kg of mass per meter of length of the magnet pods. The 2 half-magnets on the ends of the pods will produce additional lift of 630 N total for magnets with the dimensions and locations shown in Fig. 2b. Four pods, each with a length of 3 meters, will then lift 6,700 kg, the approximate mass of a normally loaded (i.e. 75% of the seats filled), small bus size vehicle.--

Please replace the paragraph beginning at line 1 on page 12 with the following paragraph:

--The relative dimensions shown in Fig. 2b were chosen according to this criterion. A magnet pod 40 with four full magnets 42 and the two end magnets 44 is shown in Fig. 4.--

Please replace the paragraph beginning at line 4 on page 12 with the following paragraph:

--In Fig. 2b, the end magnets 26 are not full height and do not have control coils. The reduced height reduces the attractive force when the magnet gap is small and this reduces the peak current required in the control coils. In some embodiments, a control coil is placed around the end magnets. A design of the end magnets could be quite different if the magnet array is very short or if higher suspension force is required, and such is envisioned herein.--

Please replace the paragraph beginning at line 37 on page 12 and ending at line 4 on page 13 with the following paragraph:

--Fig. 5 is a simplified block diagram of the control system for a typical pod according to the invention. The pod can have any number of control coils, here designated n, each controlled by an H-bridge 48, which is, in turn, controlled by a digital signal processor 50 (DSP). Gap and acceleration sensors 52 at each end of the pod provide the sensor input needed to maintain a stable gap. In practice there can be more than one processor so that there is redundancy in case of failure of the control system.--

Please replace the paragraph beginning at line 18 on page 13 with the following paragraph:

--Position sensing 56 in the illustrated embodiment is achieved as described in US Patent 6,011,508, *Accurate Position Sensing and Communications for Guideway Operated Vehicles*, the teachings of which are incorporated herein by reference; other mechanisms (known in the art or otherwise) can be used as well. The position sensing system is integrated into the LSM and this controls the switching of the inverters. When the required thrust is low it is preferable to operate the inverter so that the current is in phase with the motor back-voltage and the sign of the current determines whether the motor is providing forward or reverse thrust. Operating in-phase minimizes power dissipation in the LSM winding.--

Following the paragraph beginning at line 27 on page 13, please insert the following paragraph:

--Fig. 7 depicts a vehicle 70 according to the invention with four pods that pivot in two dimensions in order to allow negotiating horizontal and vertical turns. Fig. 8 shows how the

magnet pods, such as those illustrated in Fig. 7, can be attached to a vehicle 80 according to the invention. Fig. 8 also shows optional mechanical mechanisms according to the invention that damp oscillations of the pods with respect to the vehicle.--

Please delete the paragraph beginning at line 4 on page 3.

Please delete the paragraph beginning at line 9 on page 3.